

## SEQUENCE LISTING

<110> Blaschuk, Orest W.  
Byers, Stephen  
Gour, Barbara J.

<120> COMPOUNDS AND METHODS FOR STIMULATING  
BETA-CATENIN MEDIATED GENE EXPRESSION AND DIFFERENTIATION

<130> 100086.410C1

<140> US

<141> 2000-04-05

<160> 15

<170> FastSEQ for Windows Version 3.0

<210> 1

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<223> Modulating agent derived from beta-catenin

<221> PHOSPHORYLATION

<222> (5)...(5)

<221> PHOSPHORYLATION

<222> (9)...(9)

<400> 1

Ser	Tyr	Leu	Asp	Ser	Gly	Ile	His	Ser	Gly
1				5					10

<210> 2

<211> 80

<212> PRT

<213> Homo sapien

<400> 2

Met	Ala	Thr	Gln	Ala	Asp	Leu	Met	Glu	Leu	Asp	Met	Ala	Met	Glu	Pro
1				5				10						15	
Asp	Arg	Lys	Ala	Ala	Val	Ser	His	Trp	Gln	Gln	Gln	Ser	Tyr	Leu	Asp
			20					25					30		
Ser	Gly	Ile	His	Ser	Gly	Ala	Thr	Thr	Thr	Ala	Pro	Ser	Leu	Ser	Gly
		35				40					45				
Lys	Gly	Asn	Pro	Glu	Glu	Glu	Asp	Val	Asp	Thr	Ser	Gln	Val	Leu	Tyr
	50					55				60					
Glu	Trp	Glu	Gln	Gly	Phe	Ser	Gln	Ser	Phe	Thr	Gln	Glu	Gln	Val	Ala
65				70					75					80	

<210> 3

<211> 80

<212> PRT

<213> Gallus gallus

<400> 3

Met	Ala	Thr	Gln	Ala	Asp	Leu	Met	Glu	Leu	Asp	Met	Ala	Met	Glu	Pro
1				5					10					15	
Asp	Arg	Lys	Ala	Ala	Val	Ser	His	Trp	Gln	Gln	Gln	Ser	Tyr	Leu	Asp
			20					25					30		
Ser	Gly	Ile	His	Ser	Gly	Ala	Thr	Thr	Thr	Ala	Pro	Ser	Leu	Ser	Gly
		35					40					45			
Lys	Gly	Asn	Pro	Glu	Glu	Glu	Asp	Val	Asp	Thr	Thr	Gln	Val	Leu	Tyr
	50					55					60				
Glu	Trp	Glu	Gln	Gly	Phe	Ser	Gln	Ser	Phe	Thr	Gln	Glu	Gln	Val	Ala
65					70					75					80

<210> 4

<211> 80

<212> PRT

<213> Xenopus leavis

<400> 4

Met	Ala	Thr	Gln	Ala	Asp	Leu	Met	Glu	Leu	Asp	Met	Ala	Met	Glu	Pro
1				5					10					15	
Asp	Arg	Lys	Ala	Ala	Val	Ser	His	Trp	Gln	Gln	Gln	Ser	Tyr	Leu	Asp
			20					25					30		
Ser	Gly	Ile	His	Ser	Gly	Ala	Thr	Thr	Thr	Ala	Pro	Ser	Leu	Ser	Gly
		35					40					45			
Lys	Gly	Asn	Pro	Glu	Asp	Glu	Asp	Val	Asp	Thr	Asn	Gln	Val	Leu	Tyr
	50					55					60				
Glu	Trp	Glu	Gln	Gly	Phe	Ser	Gln	Ser	Phe	Thr	Gln	Asp	Gln	Val	Ala
65					70					75					80

<210> 5

<211> 80

<212> PRT

<213> Mus musculus

<400> 5

Met	Ala	Thr	Gln	Ala	Asp	Leu	Met	Glu	Leu	Asp	Met	Ala	Met	Glu	Pro
1				5					10					15	
Asp	Arg	Lys	Ala	Ala	Val	Ser	His	Trp	Gln	Gln	Gln	Ser	Tyr	Leu	Asp
			20					25					30		
Ser	Gly	Ile	His	Ser	Gly	Ala	Thr	Thr	Thr	Ala	Pro	Ser	Leu	Ser	Gly
		35					40					45			
Lys	Gly	Asn	Pro	Glu	Glu	Glu	Asp	Val	Asp	Thr	Ser	Gln	Val	Leu	Tyr
	50					55					60				
Glu	Trp	Glu	Gln	Gly	Phe	Ser	Gln	Ser	Phe	Thr	Gln	Glu	Gln	Val	Ala
65					70					75					80

<210> 6

<211> 79

<212> PRT

<213> Donio rerio

<400> 6

Met	Ala	Thr	Gln	Ser	Asp	Leu	Met	Glu	Leu	Glu	Met	Ala	Met	Asp	Pro
1				5					10					15	

Asp Arg Lys Ala Ala Val Ser His Trp Gln Gln Gln Ser Tyr Leu Asp  
                   20                  25                  30  
 Ser Gly Ile His Ser Gly Ala Thr Thr Thr Ala Pro Ser Leu Ser Gly  
                   35                  40                  45  
 Lys Gly Asn Pro Glu Asp Asp Val Asp Asn Gln Val Leu Tyr Glu  
           50                  55                  60  
 Trp Glu Gln Gly Phe Asn Gln Ser Phe Asn Gln Glu Gln Val Ala  
   65                  70                  75

<210> 7

<211> 80

<212> PRT

<213> Consensus sequence of Homo, Gallus, Xenopus, Mus

<220>

<221> VARIANT

<222> (1)...(80)

<223> Xaa = Any Amino Acid

<400> 7

Met Ala Thr Gln Ala Asp Leu Met Glu Leu Asp Met Ala Met Glu Pro  
   1                  5                  10                  15  
 Asp Arg Lys Ala Ala Val Ser His Trp Gln Gln Gln Ser Tyr Leu Asp  
                   20                  25                  30  
 Ser Gly Ile His Ser Gly Ala Thr Thr Thr Ala Pro Ser Leu Ser Gly  
                   35                  40                  45  
 Lys Gly Asn Pro Glu Glu Glu Asp Val Asp Thr Xaa Gln Val Leu Tyr  
           50                  55                  60  
 Glu Trp Glu Gln Gly Phe Ser Gln Ser Phe Thr Gln Glu Gln Val Ala  
   65                  70                  75                  80

<210> 8

<211> 4

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic peptide to demonstrate cyclization

<221> ACETYLTATION

<222> (1)...(1)

<221> METHYLATION

<222> (4)...(4)

<400> 8

Trp Gly Gly Trp  
   1

<210> 9

<211> 16

<212> PRT

<213> Drosophila melanogaster

<400> 9

Arg Gln Ile Lys Ile Trp Phe Gln Asn Arg Arg Met Lys Trp Lys Lys  
   1                  5                  10                  15

<210> 10  
 <211> 16  
 <212> PRT  
 <213> *Drosophila melanogaster*

<400> 10  
 Arg Gln Ile Lys Ile Trp Pro Gln Asn Arg Arg Asn Lys Trp Lys Lys  
 1 5 10 15

<210> 11  
 <211> 16  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Analogue of *Drosophila* Antennapedia protein

<400> 11  
 Lys Lys Trp Lys Lys Trp Trp Lys Lys Trp Trp Lys Lys Trp Lys Lys  
 1 5 10 15

<210> 12  
 <211> 26  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Beta-catenin modulating agent covalently linked  
 to the Antennapedia internalization sequence

<221> PHOSPHORYLATION  
 <222> (5)...(5)

<221> PHOSPHORYLATION  
 <222> (9)...(9)

<400> 12  
 Ser Tyr Leu Asp Ser Gly Ile His Ser Gly Arg Gln Ile Lys Ile Trp  
 1 5 10 15  
 Phe Gln Asn Arg Arg Asn Lys Trp Lys Lys  
 20 25

<210> 13  
 <211> 18  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Alpha-helix amphipathic model peptide

<400> 13  
 Lys Leu Ala Leu Lys Leu Ala Leu Lys Leu Ala Lys Ala Ala Leu Lys  
 1 5 10 15  
 Leu Ala

<210> 14  
 <211> 11  
 <212> PRT  
 <213> Human immunodeficiency virus

<400> 14  
 Tyr Gly Arg Lys Lys Arg Arg Gln Arg Arg Arg  
 1 5 10

<210> 15  
 <211> 22  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Beta-catenin modulating agent linked with TAT  
 protein transduction domain

<221> PHOSPHORYLATION  
 <222> (17)...(17)

<221> PHOSPHORYLATION  
 <222> (21)...(21)

<400> 15  
 Tyr Gly Arg Lys Lys Arg Arg Gln Arg Arg Arg Gly Ser Tyr Leu Asp  
 1 5 10 15  
 Ser Gly Ile His Ser Gly  
 20